

# West Virginia CY2009 Emission Inventory

## Basic Reporting Guidance

This document addresses questions and problems that have arisen over the last several years of electronic reporting, using the Satellite i-STEPS software. It is not intended to replace the Training Manual, and (hopefully) will not cover the same ground. We have also updated this document to reflect some of the changes resulting from the software upgrade to version 5.

### **General Information**

Go to our website at <http://www.dep.wv.gov/daq/planning/inventory/pages/2009pointsources.aspx>. From this page you will be able to download the software.

### **Software Installation**

- 1 - Create a folder (directory) on your computer such as c:\i5temp.
- 2 - Download WVSat.exe version 5.0.373 (size 8,307,200 bytes) into c:\i5temp.
- 3 - From c:\i5temp run WVSat.exe.
- 4 - If the Microsoft Installer has not previously been installed in this system, you will be prompted to let the machine reboot.
- 5 - Follow the prompts to install Satellite 5.0.
- 6 - When asked to select a Destination Folder, we recommend you install Satellite 5.0 to c:\i-sat5. DO NOT use a directory name that contains spaces or is more than eight (8) characters long.
- 7 - If you choose a folder other than the default, at the end of the install you will be prompted to select the directory where you installed Satellite 5.0.
- 8 - Copy the WVSat.exe file somewhere for safekeeping.

### **Updated Pollutant Tables**

- 1 - Create a folder (directory) on your computer such as c:\i5temp.
- 2 - Download Poll.zip and Userpoll.zip into c:\i5temp.
- 3 - From Poll.zip extract the files Poll.dbf and Poll.cdx into c:\i-sat5 (or whatever folder you installed the software into) replacing the previous versions of these files.
- 4 - From Userpoll.zip extract the files Userpoll.dbf and Userpoll.cdx into c:\i-sat5\data (or the "data" folder under whatever folder you installed the software into) replacing the previous versions of these files.
- 5 - Copy the Poll.zip and Userpoll.zip files somewhere for safekeeping. You may remove the c:\i5temp folder at this time.

### **Startup Screen**

The second line under the box where you enter the initials and password should read "Version 5.0.373". If it does not, you have the wrong version of the software. Enter the initials "SAT". The password is the word "LAUNCH" (must be uppercase).

### **Uploading Your Nonconfidential or Redacted Facility Data**

Before exporting your data, you will need to create a blank folder (such as c:\wvsatout, or whatever name you choose). Select "Toolbox - Interfaces - Exports - i-Steps" from the main menu. Then select the blank folder you created earlier. Any files already in this folder will be deleted. Exit the software, and use your favorite ZIP file utility to compress the output files into a single ZIP file (using the same

naming convention as last year). If the file contains redacted data, change the file extension to REDACTZIP. Attach the file to an e-mail to [dep.aci@wv.gov](mailto:dep.aci@wv.gov). If you do not get a reply within 2 business days, send us an e-mail with no attachments detailing the date of your submittal and the names of the file attachments.

### Confidential Data

The promulgation of the Consolidated Emissions Reporting Rule by USEPA and guidance developed by DEP/DAQ via Interpretive Rule 45CSR31B which became effective on November 10, 2003 now more clearly address the issue of what information is "emission data" and thus non-confidential. Pursuant to 45CSR31 and 45CSR31B, some data that your company may have claimed as confidential data in past emission inventory submissions may no longer be considered confidential data. However, our procedures for handling information that is legitimately claimed as confidential remain the same. Accordingly, if you claim any data confidential, two e-mailed submittals must be sent, one including all data and a separate e-mail containing only the public or redacted data from which you have removed the claimed confidential information. Any claim of confidentiality must be substantiated and documented per the requirements of 45CSR31 and 45CSR31B and all information claimed confidential must be clearly identified on the "Declaration of Data Confidentiality" spreadsheet available on our website. Be specific as far as which fields in the database you wish kept confidential. It is not enough to use references such as "process data", and expect us to know which fields you mean.

If you intend to claim any data confidential, you will need to create 2 ZIP files. Change the extension to CBIZIP for the confidential submittal and REDACTZIP for the redacted copy, and attach the files to separate e-mails. If you do not wish to send confidential data in an e-mail, contact us to discuss your options.

### Printed Reports

The new version 5 software does not provide the same kind of detailed report that was available in previous versions. There are 3 reports available from the main menu, and the only output options are Screen or Printer.

The "Detail Report" does not actually contain all the detailed data for each record in the database, but it may be useful as a means of proofing the database prior to submitting it. Also, the last page of this report contains a summary of facility emission totals. Selecting this report may sometimes generate an error, and cause the program to abort. If so, restart the program and try selecting the report again. Also, be aware that the final page of this report will only show 49 pollutants. If you have more than 49 pollutants at your facility, not all of them will be shown on the final page.

The "Summary Report" appears to be customized for the state of Delaware, and contains only a summary of Criteria Pollutants at the facility level.

The "Process level summary Report" generates an error if selected, and causes the program to abort.

### Deleting Information

Previous versions of the software did not allow you to delete any stacks, groups, or processes, once entered. If there is any data you wish deleted, select "Toolbox - Utilities - Delete" from the main menu. If you wish to delete a stack, make sure that no processes reference that stack.

If you wish to delete your entire database and start over, select “All - Facility General” under “Toolbox - Utilities - Delete” in the main menu. Be careful, as there is no way to recover the data once it has been deleted.

Deleted records are not actually removed from the database until you select "Toolbox - Utilities - Index/Pack" from the main menu.

### Multiple Facilities (see page 32 of i-Steps Manual for facility name requirements.)

Do not attempt to keep data on more than one facility in the same database. If you need to work on more than one facility, there are two options. The first, and most straightforward, is the sequential method. Complete the data entry for a single facility, export the data to the labeled diskette or folder, and delete the facility from within Satellite i-Steps. Then start on the next facility, and repeat the process.

The second option is a bit more tedious. When you are working on plant A and wish to switch to plant B, export the data to the labeled diskette or folder for plant A. Delete the facility from within Satellite i-Steps. Then import the data for plant B from its labeled diskette or folder. When you wish to switch back to plant A, reverse the procedure. Be careful, as it is easy to lose data if you export to the wrong diskette or folder.

### Changing ID Numbers

If you change a group ID number, that change is carried down to all the processes and pollutants in that group. Unlike previous versions, version 5 will NOT allow you to change any process ID numbers.

If you change a stack ID number, that change DOES NOT get carried to the processes that referenced that stack. In this case, you must manually change the stack number for all such processes.

### Pollutant Control Efficiencies

In previous versions of the software, control efficiencies were entered at the Process Unit Emissions level. That is no longer the case, as you are now required to enter data in 3 new data areas: Abatement Equipment, Abatement Efficiency, and Control Scenario. After entering all your control efficiencies and connecting the Process Units to the appropriate Abatement Equipment, you will need to select "Toolbox-Utilities-Recalculate All" from the main menu to recalculate overall control efficiencies. Otherwise, the controlled emission numbers may not correctly reflect the control efficiencies. ALWAYS run the recalculate procedure, and verify that your reported emissions and control efficiencies are what you expected them to be, before you submit your data to us.

## **Map - Facility General**

Note: the terms “plant” and “facility” are interchangeable. Those terms have the same meaning as the word “source” as used in Section 503(a) of the Clean Air Act Amendments of 1990.

### Facility Identification Number

Over the years, the DAQ has used several different types of numbering schemes to identify facilities. This has led to some confusion within the regulated community, as well as within the DAQ itself. The numbers have contained various combinations of the EPA Region, State, County, Air Quality Control Region (AQCR) and Plant.

For example, the John Amos Power Plant was the 6th plant to be assigned a number in Putnam County (county 079).

For the above example, the submittal file would be named "079-00006.zip" (assuming no confidential information). County "079" and facility "00006" would be entered on the "Certification of Data Accuracy" form and used in the database.

## **Map - Group/Area Designation**

In previous versions of the software, this was referred to as the "point" level.

This screen contains operating schedule information. Typically, it is used to represent individual or "grouped" equipment in which emissions are generated. The "O3 Season Operation (Jun-Aug)" field and the quarterly throughput percentage fields will be used to estimate average daily emissions from the annual emissions entered in the Process Unit Emissions screen.

You can combine emission units into a single Group, as long as all the emission units so grouped operate on the same schedule. However, there are situations where we request that you split such groups into two or more smaller groups for reporting purposes. For example, if different pieces of equipment are subject to different air regulations, they should be reported in separate Groups.

Please organize Group-level data that may be subject to major Federal requirements such as BART, PSD, MACT or NSPS that are triggered by start-operation date, design capacity, type of equipment, or potential to emit into separate Groups. Also, please try to provide these data in the fields that ask for that information.

## **Map - Process Unit Identification**

In previous versions of the software, this was referred to as the "segment" level.

This screen contains data on the pollutant generating processes or activities at or within a particular Group. The SCC (Source Classification Code) identifies the type of process or activity. Each SCC has a default "SCC Units", such as "Tons Burned" or "Widgets Manufactured". Although the software allows you to enter any units you want, PLEASE use the default units if at all possible. If you wish to have the software calculate emissions for you, using emission factors and process rates, you MUST use the default units. The "Annual Process Rate" and "Maximum Operating Rate per Hr" are expressed in the SCC Units entered on this screen.

## **Map - Stack Parameters**

A "stack" in this database refers to any place where emissions enter the atmosphere, not just "smokestacks" in the traditional sense. If such a "stack" does not have a definable height and diameter, leave them blank and enter an estimated height of release (vent height).

It is a good idea to define stacks in the database before adding processes. Then, when you come to the line on the process unit ADD or EDIT screens that asks for the stack that the particular process vents to, you can call up a list to pick from by hitting the "F1" key.

Warning: if you change a stack's number, the change is NOT reflected in the processes that referenced that stack. Each such process must be edited to reference the new stack number.

## **Map - Facility Emissions**

The only items which can be edited on this screen are Measured Emissions, Permit Limitations, and PTE. After you have completed your inventory, select "Toolbox-Utilities-Recalculate All" from the main menu to total the emissions for the entire plant to this level. These totals can then be used on your Certified Emission Statement (CES). The value to use on the CES is "Emissions (without RE) TPY".

## **Map - Group/Area Emissions**

The only items which can be edited on this screen are Permit Limitations and PTE.

## **Map - Stack Emissions**

The only items which can be edited on this screen are Permit Limitations and PTE.

## **Map - Process Unit Emissions**

If you forget which SCC you chose for this process and/or what the SCC units were, click the "View" button for a reminder window.

## **Pollutant Codes**

See our website for pollutant guidance

## **Estimation Methods**

Your estimated emissions will be entered on different lines, depending on the estimation method you choose. The available methods are as follows:

- 1 - Source Test
- 2 - i-STEPS Equation/Material Balance
- 3 - Manually Calculated/AP-42 EF
- 4 - Best Guess
- 5 - Manually Calculated/Local EF
- 6 - New Construction
- 7 - Source Closed
- 8 - i-STEPS Calculated/AP-42 EF
- 9 - i-STEPS Calculated/Local EF

### **(a) Method 1**

Enter the actual emissions on the line labeled "Emissions (without RE) TPY". The other emission estimate lines will be calculated. Ignore them.

### **(b) Methods 2,3,4,5,6,7**

Unlike previous versions of the software, you can enter either controlled or uncontrolled emissions. If the emission value you are entering is what the emissions would have been without controls, enter the value on the line labeled "Emissions (before control) TPY". If you are entering the actual emissions, enter the value on the line labeled "Emissions (without RE) TPY". For sources without a control device, you may enter the value on either line. The software will recalculate all the other emission estimate lines whenever you make an entry.

**(c) Method 8**

The software will calculate emissions for you, using its own built in emission factors. Make sure that you agree with this estimate before submitting your inventory. In order for this calculation to work, you must have entered annual process rate data at the Process Unit Level, and the SCC Units must be the default units. Also, some SCC codes require entries for Ash, Sulfur, and/or Heat Content. If you choose Method 8, DO NOT claim any of these fields as confidential, as they are needed to calculate emissions using the built in emission factors. If you wish to report a different emission rate than the software would have calculated, or if you wish to keep any of the process rate data confidential, you must choose one of the other estimation methods.

**(d) Method 9**

This method is almost identical to Method 8, except that you enter your own emission factor. Unlike previous versions of the software, you may define more than one user-defined emission factor for each SCC-Pollutant combination at the Process Emissions Level. If you choose to do so, however, be sure to enter a comment for each factor to allow you to pick the correct one from the list.

**Map - Abatement Equipment**

This screen is used to define air pollutant control devices. You must define Abatement Equipment before adding or editing Process Unit Emissions, or the control efficiencies will not be properly accounted for. Also, be sure to enter an Equipment Description which means something to YOU, so that you can more easily connect the Abatement Equipment to the appropriate Process Units.

**Map - Abatement Efficiency**

This screen is used to define destruction or removal efficiencies for all pollutants controlled by each piece of Abatement Equipment. Be sure to enter data for ANY pollutant you would EVER want to report as being controlled by this device. For example, you could enter an efficiency for PM10 and forget to enter one for PM10-PRI. If you later added both pollutants to a process controlled by this device, the PM-PRI emission would not have any control efficiency applied and could be significantly over-reported.

**Map - Control Scenario**

Select a Process Unit, then go to this screen to connect Abatement Equipment to that Process Unit. Capture efficiency refers to the amount of the exhaust stream that goes to the control device, and is normally 100% for any scenario where pipes and ductwork connect the control device directly to the process. Use a capture efficiency less than 100% only for situations such as hoods where part of the emissions never makes it to the control device.